

14. FIELD SANITATION

Lesson Topic: Field Sanitation

Instructional Materials:

Instructional References:

1. MCIO P1500.44b
2. FM 21-10

Instructional Aids:

1. Visual Aid Panel
2. One canteen
3. One bottle of iodine tablets

Terminal Objective:

1. To instruct students in the areas of field mess gear, latrine and waste disposal, and water purification and usage.

Enabling Objective: Upon completion of this lesson the student will be able to apply or describe those techniques of field sanitation to include:

1. Drawing and purifying water.
2. Cleaning of individual mess gear.
3. Disposal of human waste and construction of appropriate latrine facilities if placed in a field environment or a simulated field environment.

I. INDIVIDUAL WATER TREATMENT

- A. Normally water will be provided to the Marine/Sailor from an approved source.
- B. If safe water is not available then the Marine/Sailor must provide his own potable (safe) water.
- C. If water is being drawn from a stream near a bivouac area, you must draw water up stream away from sources of contamination. Water from a stream is used in the following steps from the upstream to the downstream flow.

1. Drinking
2. Cooking
3. Bathing
4. Washing clothes
5. Washing vehicles

D. Follow the steps listed to purify water in a canteen.

1. Add one iodine tablets to a quart canteen of water of clear water. For muddy water use two iodine tablets. Iodine tablets must be checked prior to use. If not steel gray in color, or if stuck together or crumbled, do not use.
2. Place cap on canteen loosely.
3. Wait approximately 5 minutes to allow tablets to dissolve.
4. Shake the canteen well, allowing the water to seep around the cap to rinse the threads of the canteen.
5. Tighten cap.
6. Wait for 30 minutes before using the canteen of water.

E. Boiling of water

1. This method may be used when iodine tablets are not available.
2. It is a good method but has several disadvantages:
 - a. Fuel is required.
 - b. It takes a long time for water to boil and then cool.
 - c. There is no residual protection against recontamination.
 - d. Water must be held at a rolling boil for at least 15 seconds to make it safe to drink.

II. CLEANING OF INDIVIDUAL MESS GEAR

A. Utilizing a model field eating utensil washing facility consisting of five G.I. cans in a line you will follow the steps listed below to properly clean your mess gear.

1. Scrape the food particles from eating utensils into the first can.
2. Using the long brush provided, wash the eating utensils in the first container of hot soapy water.
3. Using the long brush provided, wash the eating utensils in the second container of hot soapy water.
4. Immerse the eating utensils in the first container of clear boiling water for 30 seconds.
5. Immerse the eating utensils in the second container of clear boiling water for 30 seconds.
6. Shake the eating utensils to remove excess water. Check the utensils to ensure they are clean. If not repeat the cleaning cycle.
7. Allow the utensils to air dry.

III. DISPOSAL OF HUMAN WASTE

A. Quantities of waste are generated each day under field conditions. This waste must be disposed of properly or the area will become a breeding place for disease.

B. The following are recommended methods for disposal of human waste while on the march or in temporary bivouac.

1. Cat hole latrine

- a. While on the march each person uses a cat hole latrine during short breaks.
 - b. It is dug approx. 1 foot deep and is completely covered and packed down after use.
2. Straddle trench
- a. When in temporary bivouac of 1 to 3 days a straddle trench will most likely be used unless a more permanent facility has been provided for the unit.
 - b. The straddle trench is dug one foot wide, 2 1/2 feet deep and four feet long.
 - c. The earth removed from the trench should be piled to one side so that personnel using the straddle trench may cover his waste after using the trench.
 - d. The trench may be used until material fills the trench within one foot of the surface.
 - e. Before breaking camp or when trench is full, the trench must be filled, mounded over and marked with a sign stating what it was and date closed.

IV. DISPOSAL OF GARBAGE AND RUBBISH

- A. Garbage and rubbish must be collected from the bivouac areas on a daily basis. If arrangements have not been made to have garbage carted away daily, it must be buried. Flammable trash may be burned prior to burial, if the situation permits.
- B. A garbage pit is dug four foot wide, four foot deep, four foot long. When the pit is filled to within two foot of the surface, it must be filled with tightly packed dirt. It must be marked with a sign stating what it was and date closed.

V. REVIEW

- A. The instructor shall ask the students if they have any questions. Questions should be allowed during the lesson to clarify any misunderstandings.
- B. If students do not have any questions, the instructor shall ask questions to insure that the lesson is understood.